INTRODUCTION AND BACKGROUND

In the aftermath of the Cold War, a number of defense experts have argued that the military should be reorganized to reflect new challenges rather than simply shrinking the Cold War establishment. Debate on this issue often takes place under the rubric of "roles and missions," since the issue revolves around reorienting the services' roles and eliminating overlapping missions for which the services have duplicative capabilities.¹

The term roles and missions may evoke consolidation of combat missions, but more than half of the budget of the Department of Defense (DoD) consists of programs that do not directly pay to acquire or operate combat forces. A number of these support (or infrastructure) functions are performed separately by each service and thus might be reasonable candidates for consolidation. Indeed, the Assistant Secretary of Defense for Strategy and Requirements, Ted Warner, recently suggested that "there could be some major financial benefits [to the consolidation of the services' roles and functions], especially savings associated with consolidation in infrastructure."²

Changes in DoD's environment in the roughly 50 years since the department was created may also offer opportunities for restructuring its functions. In addition to being performed separately by more than one service, many DoD support services are performed by firms in the private sector. More emphasis could be placed in the support area on reducing the department's role as a direct producer of services and increasing its reliance on the infrastructure available in the private sector. Geopolitical changes might also permit eliminating or deemphasizing some activities.

Debate on roles and missions is not new, but it has recently intensified. Senator Sam Nunn, Chairman of the Senate Armed Services Committee, made a seminal speech on the topic in 1992, in which he described a number of support functions that DoD might consolidate.³ The Senator also

The Congressional Budget Office published an analysis of combat forces last March in "Options for Reconfiguring Service Roles and Missions," CBO Paper (March 1994), for the Senate Budget Committee. In that publication, CBO promised to provide this analysis of support functions to the Committee.

 [&]quot;One on One" interview with Ted Warner, Assistant Secretary of Defense for Strategy and Requirements, Defense News, June 6-12, 1994, p. 46.

Senator Sam Nunn, "The Defense Department Must Thoroughly Overhaul the Services' Roles and Missions," Congressional Record, July 2, 1992, pp. S9559-S9565.

mentioned several functions that might be candidates for restructuring, such as depot maintenance--for which he recommended increased competition between public and private sectors--and the collection and analysis of intelligence. (Excerpts from Senator Nunn's list are shown in Table 1.)

In response to the Congress, the Department of Defense subsequently provided an analysis of consolidation for potential roles and missions. General Colin Powell, then Chairman of the Joint Chiefs of Staff (JCS), headed this effort, which concluded that in most of the functions described as potential areas of overlap by Senator Nunn the services should continue to meet their needs independently. General Powell asserted the importance of redundancy in combat missions and in many support missions as well.

CONGRESSIONALLY DIRECTED COMMISSION ON ROLES AND MISSIONS

Rejecting the JCS report, the Congress established a new and independent Commission on Roles and Missions.⁵ According to the language about the bill that established the commission, "The House bill contained provisions (Title XIV) that would establish a commission on roles and missions of the armed forces. This action stemmed from a dissatisfaction with the scope of the roles and missions reforms recommended by the Chairman of the Joint Chiefs of Staff earlier this year in his triennial report." The commission must produce a report on consolidating roles and missions and restructuring DoD functions within one year of its first meeting.

The first meeting of the commission-which set the clock running-took place on May 24, 1994. The commission's staff discussed a tentative organization for the commission's inquiry in that meeting. That organization suggests that the commission will pursue an analysis of roles and missions for DoD under two areas of inquiry: forces and infrastructure. Many of the infrastructure categories identified by the commission overlap with the support activities of the earlier efforts.

Chairman of the Joint Chiefs of Staff, Report on the Roles, Missions, and Functions of the Armed Forces of the United States (February 1993).

^{5.} U.S. House of Representatives, National Defense Authorization Act for Fiscal Year 1994, Conference Report to Accompany H.R. 2401, Report 103-357 (November 10, 1993), p. 706. The language was initiated in the report of the House Committee on Armed Services, National Defense Authorization Act for Fiscal Year 1994, Report 103-200 (July 30, 1993), p. 361. The conference accepted the House idea, but it shortened the commission's term, provided for appointment of commission members by the Secretary of Defense, and eliminated a requirement that the commission review DoD actions on consolidation.

TABLE 1.	SUPPORT AREAS FOR POSSIBLE CONSOLIDATION
	OR RESTRUCTURING

Issue Ra Senator		Action Taken or Recommended by the Chairman of the Joint Chiefs of Staff Further consolidation of intelligence production centers under a joint intelligence organization. Study additional options for restructuring.						
Intelliger	nce Activities							
Pilot Training		Consolidate initial fixed-wing training and use a common trainer; study consolidating initial helicopter training. Create four training pipelines for follow-on training.						
Medical Corps		Not addressed.						
Maintenance Depots		Consider closing 7 or 8 of the 30 depots, relying more on the private sector to provide services.						
Weapons Development and Acquisition		Not specifically addressed, though several sections of the report recommend procuring common systems.						
Consolidate Chaplain Corps and Legal Services		Do not consolidate since it will harm morale and not save any money.						
SOURCE:	Congressional Budget Office based on Senator Sam Nunn, "The Defense Department Must Thoroughly Overhaul the Services' Roles and Mission," Congressional Record, July 2, 1992, pp. S9559-S9565, and Chairman of the Joint Chiefs of Staff, Report on the Roles, Missions, and Functions of the Armed Forces of the United States (February 1993).							
NOTE:	Senator Nunn also listed a number of combat functions that DoD might consider restructuring. Some of those are discussed in more detail in Congressional Budget Office, "Options for Reconfiguring Service Roles and Missions," CBO Paper (March 1994).							

BUDGET PRESSURES FOR RESTRUCTURING

Congressional pressures for restructuring spring at least in part from the belief that the U.S. armed forces can become more efficient if they are reorganized and if redundancies are eliminated. Both DoD and the services feel these budget pressures as well and may be more amenable to consolidation or restructuring in today's austere funding climate than they were in times of plentiful funds. Indeed, according to press reports, the Joint Chiefs of Staff under Chairman John Shalikashvili and Vice Chairman William Owens may be wresting more control of DoD's resources from the individual services. A heightened JCS role in the budget process might increase the emphasis on joint programs and activities in future plans. Admiral Owens experienced some success in restructuring naval functions before he came to the JCS.

DoD's budget woes have been widely discussed. An earlier CBO analysis suggested that the funds in the five-year plan should be roughly sufficient to fund Administration force plans.⁷ But it identified several potential problem areas that, though small as a percentage of the overall DoD plan, could create a need for further program reductions. Problem areas include:

O Shortages in the Administration's Plan. Secretary of Defense William Perry told the Congress that the Administration's plan was \$20 billion short over the five years. He argued that declines in inflation might eliminate some of these shortages. But inflation rates might not prove to be lower than the Administration's estimates, so DoD may instead need to make real reductions in its program. Indeed, the department may already have begun. Recent press reports suggest that DoD's direction on preparing next year's budget involves programmatic cuts of about \$10 billion, presumably over the 1996-2000 period.8

Robert Holzer and Stephen C. LeSueur, "JCS Quietly Gathers Up Reins of Power," and "JCS Chairman's Rising Clout Threatens Civilian Leaders," *Defense News*, June 13-19, 1994, pp. 1 and 29, respectively. The articles suggest that increased JCS control could decrease overlap among service programs. But such organizational changes might simply displace civilian control, which presumably would also have aimed at eliminating duplication.

^{7.} Congressional Budget Office, "Planning for Defense: Affordability and Capability of the Administration's Program," CBO Paper (March 1994).

Steps DoD takes to solve shortages in budget authority could relieve some of the pressure on accounts that spend quickly. For a discussion of this issue and others relating to the adequacy of defense funding, see Congressional Budget Office, An Analysis of the President's Budgetary Proposals for Fiscal Year 1995 (April 1994), Chapter 3.

- Pay Raises. The Administration's planned funding for future pay raises is lower than statutory recommendations. Both House and Senate authorization bills for fiscal year 1995 contain pay raises for military personnel of 2.6 percent, 1 percentage point higher than the raise requested by the Administration. Funding this raise in the years beyond 1995 will add to future budgets. Including pay raises at levels suggested in statutory language in future years will heighten budget pressures even more.
- Weapons Programs. Plans for DoD for the next five years include several programs that will enter procurement. Commonly, acquisition costs grow at the start of the procurement phase. If DoD decides not to delay programs or decrease quantities bought, additional funding could be needed for these programs.
- o <u>Environmental Cleanup</u>. DoD has historically underestimated the funding needed for environmental cleanup. Funding could rise for these programs if today's planned funding proves to be as optimistic as it has been in the past.
- o <u>Base Closure</u>. Savings from the base realignment and closure (BRAC) process could fail to materialize. DoD is currently suggesting that it may be difficult to eliminate all of the bases slated for closure as rapidly as currently planned, much less make another round of reductions in 1995. Ironically, this delay—if it materializes—could be caused by the need to reduce near-term budget pressure, since closing bases adds to costs. In the longer term, however, savings currently included in the estimates will not materialize if the bases remain open.
- o Increases for Other Nondefense Programs. Defense could end up paying some share of increases in spending on domestic programs, if the Administration or the Congress feels that domestic programs should receive higher priority. About \$20 billion would be needed over the 1995-1998 period to keep domestic discretionary programs from declining in real terms. Enacting national health care legislation or welfare reform could add to budget pressures.

CBO's analysis suggested that DoD could experience much larger shortages in the long term. Defense could need from \$12 billion to \$25 billion more per year over the 2000-2010 period than it would receive if the budget remains at 1999 levels in real terms. Although relatively modest real increases could meet these funding requirements, many defense experts doubt that these additional funds will be forthcoming.

INSTITUTIONAL BARRIERS TO CHANGE

DoD might be able to realize operating efficiencies even without restructuring and consolidating. Many of the savings from restructuring discussed in this paper stem from eliminating excess capacity created by the smaller demands placed on support functions by the post-Cold War military; others come from paring back functions that are no longer needed. Most of these changes could occur within the current organizational framework, if the Administration and the Congress chose to make the reductions and enforce them.

Institutional barriers, however, make this task difficult. The services have sound reasons for preferring to retain support capabilities under their own control, even at the cost of some loss of efficiency. The functions they fund and control, for example, are more likely to respond to their needs. Also, any gains from efficiency are likely to result in overall budget reductions rather than increased funding for other programs. Moreover, keeping control of a support activity not only increases a service's total budget—perhaps providing flexibility to reallocate resources—but also offers additional command assignments, personnel billets, and other bureaucratic advantages. A service's tendency when faced with budget reductions thus may be to make pro rata cuts rather than risk losing control of a function by cutting it disproportionately.

By contrast, restructuring responsibilities within DoD might break down some of the bureaucratic barriers to change and, as a result, increase the chance of eliminating redundant or obsolete capabilities. Placing responsibility for a support activity in an independent agency, for example, might free managers to choose between competing facilities or providers in DoD and the private sector.

However, political as well as bureaucratic barriers create obstacles to major restructuring. Both the Administration and the Congress may want to preserve bases and programs that have little military utility but that nonetheless benefit specific constituencies. Concerns about the need to cut the defense budget or to provide services more efficiently may be outweighed by the closing of major military facilities or by the loss of jobs, especially if the military services also are opposing efficiencies because of the prospect of losing control of functions they wish to keep. In the pluralistic U.S. political system, the costs of restructuring--whether imposed on the military services, defense employers, or communities--may be more visible than the benefits conferred on the economy at large.

INFRASTRUCTURE AND SUPPORT

Nevertheless, budget pressures may cause the services to focus on restructuring, which may be less contentious in support programs than in combat areas. Support and infrastructure programs may also receive more attention in the newest of DoD's roles and missions efforts.

The staff of the roles and missions commission used DoD's programmatic structure to provide a rough conceptual breakout between forces and infrastructure. All DoD resources are divided into 11 major programs. (Table 2 provides a listing of the major programs and their resources.) The staff's delineation defines support by what it is not: forces. They characterized forces as those activities receiving funding in the following major programs: Strategic Forces (Program 1), General Purpose Forces (Program 2), Airlift and Sealift (Program 4), Guard and Reserve Forces (Program 5), and Special Operations Forces (Program 11). Funding for force programs totaled \$132 billion, or about 51 percent of total DoD funding in 1994. In the Administration's fiscal year 1995 plan, that is scheduled to decrease in real terms to about \$116 billion by 1999 (in 1995 dollars).

Using that definition, infrastructure functions constitute the remainder: Command, Control, Communications, Intelligence, and Space (Program 3); Research and Development (Program 6); Central Supply and Maintenance (Program 7); Training, Medical, and Other General Personnel Activities (Program 8); Administrative and Associated Activities (Program 9); and Support of Other Nations (Program 10). Funds for these infrastructure programs total \$125 billion, about 49 percent of the DoD budget for 1994. Funding will decline to \$111 billion in real terms by 1999 in the current plan, though these programs will keep the same share of the DoD budget.

Funds for infrastructure could be even greater. Indeed, the Bottom-Up Review's estimate of funds for infrastructure in 1994 contained about \$35 billion more than funding in the these programs. That additional funding includes payments for depot maintenance and administrative activities that are included in the forces programs.

The Congressional Budget Office lacks indices weighted by the specific spending patterns associated with the major programs and so used aggregate Department of Defense inflators.

^{10.} A category that reflects the negative wedge in the Administration's plan is allocated proportionally to forces and infrastructure.

TABLE 2. DEPARTMENT OF DEFENSE FUNDING BY MAJOR PROGRAM (In billions of 1995 dollars and percentages)

		Total Obligational Authority ^a						Percentage Change from 1991	
Рго	gram Number and Description	1991		_	1997		1999	1995	1999
		Fo	rces				_		
1	Strategic Forces	21	8	8	7	7	7	-60	-68
2	General Purpose Forces	133	89	86	82	84	82	-34	-38
4 Airlift and Sealift		6	9	9	7	8	9	38	37
5 Guard and Reserve Forces		20	18	18	18	17	17	-9	-13
11	Special Operations Forces	3	_3	_3	_3	_3	_3	5	5
	Total Total After Adjustment for the Undistributed	183	127	123	117	119	118	-31	-36
	Reduction	183	127	120	115	117	116	-31	-37
	Share (Percent)	54	50	50	50	51	51	-7	-5
		Infrast	ructure						
3	Command, Control, Communications,	,							
	Intelligence, and Space	33	31	31	30	30	29	-7	-12
6	Research and Development	30	26	25	24	22	21	-13	-30
7	Central Supply and Maintenance	35	19	17	16	15	16	-47	-55
8	Training, Medical, and Other	40							
9	General Personnel Activities Administrative and Associated	49	42	40	39	38	39	-14	-20
	Activities	10	7	8	7	7	7	-27	-30
10	Support of Other Nations	_1	_1	_1	_1	<u>_i</u>	_ <u>i</u>	1	-23
	Total	158	126	121	117	113	113	-20	-29
	Total After Adjustment for the Undistributed								
	Reduction	158	126	118	114	111	111	-20	-30
	Share (Percent)	46	50	50	50	49	49	8	6
		Total l	Funding						
Forces and Infrastructure		341	253	244	234	233	230	-26	-32
Future Program/Budget Adjustments ^b		0	0	-6	-5	-5	-3		

SOURCE: Congressional Budget Office based on Department of Defense data.

NOTE: n.a. = not applicable.

DoD's aggregate inflation indices were used to deflate DoD's current-dollar projections, since CBO lacks weighted indices for programs.

b. CBO assumes this undistributed reduction is divided proportionally between forces and infrastructure.

DoD spends an even larger share of its budget on support activities. The term infrastructure can connote centralized activities or activities that are not force-related. But the DoD budget also funds a number of activities that do not contribute directly to combat, but rather support combat activities, and are found in the programs designated as forces in this breakout. For example, a number of activities performed by the guard and reserve are support activities, though they are listed in Program 5. Similarly, some analysts might argue that airlift and sealift support combat, but they too would be designated forces rather than support in the commission staff's definition.

Given the magnitude of the funds--and the sizable share of its budget-that DoD devotes to even the narrowest definition of support activities, any
serious look at consolidation or reorganization must consider support
functions, though some analysts have reservations about the efficiency of
consolidations (see Box 1 for a discussion of some of their concerns).
Whatever the reservations, finding savings through consolidating support
activities could permit the services to keep combat forces at higher levels or
to preserve their readiness. Merging support programs may also coincide
with consolidating combat functions.

Emphasis on joint warfighting--having the military services plan and execute missions together--may strengthen arguments for consolidation. U.S. defense strategy in the post-Cold War world seems to place more emphasis on joint warfighting, perhaps reflecting the realities of recent conflicts and the need for the services to work together because of their smaller force levels. Even if service-specific combat missions are not consolidated, joint warfighting may place a premium on consolidating support functions. Services that operate the same systems, receive the same early training, and share common sources of intelligence may fight better together. Consolidating support functions may improve the chances of those outcomes. For example, the services may be somewhat more likely to develop common equipment if there is a unified acquisition command, which suggests that there may be good reason to promote consolidation of certain support missions on grounds of effectiveness as well as efficiency.

For a discussion of readiness, see Congressional Budget Office, "Trends in Selected Indicators of Military Readiness, 1980 Through 1993," CBO Paper (March 1994).

BOX 1 THE ECONOMICS OF CONSOLIDATION

Many policymakers assume that consolidating related functional activities will yield savings. But does consolidating activities make economic sense? The answer is not obvious, and will depend on several factors that must be assessed for each individual situation.

The first of these is the economic scale of a single facility. Take automobile manufacturing as an example. The economic scale of an automobile assembly plant appears to be a facility producing 200,000 to 300,000 cars or trucks a year and employing about 3,000 workers. Through experience, manufacturers have found that plants of that size can gain the advantages of increased scale of operations without growing unwieldy. Since the U.S. automobile industry produces about 10 million vehicles a year, around 40 such assembly facilities—as well as thousands of more specialized, and generally smaller, parts manufacturers—are needed to meet the demand. Clearly, given these facts, there is room for several different firms to occupy economically profitable roles within the overall industry, and there is little reason to expect that consolidating firms into one giant entity would offer any savings in production costs (not to mention its negative effect on competition).

This scale factor is most relevant to Department of Defense activities that resemble industrial or commercial functions, such as depots, shipyards, and arsenals, as well as medical facilities, commissaries, and other facilities providing services to military personnel. In general, the economic principle at work is that if some or all of the services do not generate enough work to staff a single facility economically, then consolidation will surely pay. Conversely, however, if their separate work loads already justify multiple facilities—operating at economic scales—then it is not obvious why consolidation should offer savings.

The second major economic principle is the diseconomy of large organizations. As organizations grow, they tend to add managers and support personnel faster than direct (or "touch") labor. In other words, they tend to become less efficient in their use of personnel. That is a well-documented empirical observation for which several explanations have been offered. One explanation is found in network theory—as the number of nodes in a network grows arithmetically, the number of possible interconnections grows geometrically. If the role of managers is to facilitate the exchange of information among workers, then the managers correspond to the interconnections while the direct workers correspond to the nodes. A more practical reason may be that the larger the organization, the harder it is to track the contribution of individual workers or managers to the "bottom line" and therefore the easier it is to add layers of bureaucracy.

This second observation bears most directly on organizations whose "product" is knowledge—the intelligence community is one example drawn from DoD. Where the chief economic activity is the exchange of information and there are no offsetting physical economies of scale to exploit, one may find that large organizations are handicapped relative to smaller ones.

All of the above applies to a "pure" consolidation—in which the exact same level of work effort is maintained. Proponents of consolidation typically have in mind a very different situation—one in which separately operated facilities have large amounts of excess capacity, and separately maintained support and management structures are oversized relative to the activities they control. Under these conditions, consolidation will tend to offer significant savings, but so would trimming the fat from each of the separate organizations without necessarily consolidating them.

For further discussion of the automobile industry, see Chapter 4 of J.P. Womack, D.T. Jones, and D. Roos, The Machine that Changed the World (New York: Macmillan, 1990).

CHARACTERISTICS OF CANDIDATES FOR CONSOLIDATION OR RESTRUCTURING

It may be helpful to identify characteristics that make some functions better candidates for consolidation than others. There may also be cases where fundamental restructuring might be considered. Support functions that are candidates for consolidation might include those that:

- o Involve tasks or activities common to more than one service (for example, medical care and beginning pilot training);
- o Have significant excess capacity as DoD decreases the size of its forces (for example, facilities with the capacity to absorb additional work);
- o Maintain common equipment, or offer opportunities for savings from buying or developing common systems from anticipated modernization:
- o Support combat activities where missions are shifting; and
- o Support joint combat activities, where consolidation might improve performance.

Support functions that are candidates for restructuring might include those that:

- o Are not uniquely military and are already being performed in the private sector by a competitive industry;
- o Although unique to DoD, are not closely tied to warfighting capabilities; and
- o Meet requirements that are undergoing significant change.

A number of functional areas may meet these criteria. In the following analysis, the Congressional Budget Office (CBO) provides illustrative examples of consolidation or restructuring in several areas: services to DoD personnel; purchase and maintenance of weapons; intelligence; and training. For each of these examples, the following chapters discuss how the restructuring might work, how it might improve capabilities, and any potential disadvantages it might have. The examples were chosen as illustrations and are not exhaustive. CBO does not make recommendations, so readers should

not interpret the inclusion of a particular function as a CBO recommendation for restructuring. Nor should readers necessarily interpret exclusion of a particular function as CBO's sanction of the current organization.

Each segment also contains a set of illustrative costs and savings associated with the particular example. Savings and costs are relative to the Administration's plan for fiscal year 1995. Producing these estimates involves making a number of assumptions, not only about how the particular change would be implemented but also about assumptions in the current plan.

Savings associated with the options discussed here are affected by other aspects of the DoD budget process. One complicating factor is the base realignment and closure process. Bases that might have been closed under BRAC might also be closed under consolidation or restructuring, and obviously closing a particular facility can only yield one set of savings. A second consideration is that the Administration's plan contains several undistributed reductions. One is the \$20 billion shortfall discussed by Secretary Perry. A further undistributed reduction, however, is included in the allowances section of the federal budget (function 920). That section contains undistributed reductions resulting from procurement reform that, over the 1995-1999 period, total \$12 billion (in current dollars). The Office of Management and Budget has allocated only the 1995 savings-about \$0.7 billion--to specific agencies, so it is difficult to estimate what DoD's share of the roughly \$11 billion remaining might be. But DoD expends a large portion of the procurement funds found in the federal budget and therefore might have to absorb a large share of the cut.

The Administration may need to resort to some of the personnel reductions and base closures discussed in the various options to allocate these undistributed reductions. Some of the costs and savings shown here thus may already be included in the Administration's planned funding.